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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,398	01/19/2001	Allen Su	34759.8500	7399

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EXAMINER

NAJJAR, SALEH

ART UNIT PAPER NUMBER

2157

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/766,398

Applicant(s)

SU, ALLEN

Examiner

Saleh Najjar

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date February 2, 2001.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

1. This action is responsive to the application filed January 19, 2001. Claims 1-24 represent a system and method for facilitating communication between devices in an industrial network.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Nixon et al., U.S. Patent No. 6,098,116.

Nixon teaches the invention as claimed including a process control system for automatically recognizing devices and controllers (see abstract).

As to claim 1, Nixon teaches an apparatus for communicating between a first device and a second device, comprising:

a controller of the second device in communication with the first device (see fig. 1A; col. 5, line 55, Nixon discloses industrial controllers 4 and 5), and

an industrial network coupled between the first device and the controller to facilitate communication between the first and second devices (see fig. 1A; col. 5, line 20, Nixon discloses an industrial network 3).

As to claim 2, Nixon teaches the apparatus of claim 1, further comprising at least one first input/output controller module of the first device in communication with the controller via the industrial network in order to facilitate communication between the first and second devices (see col. 5, line 55-65, Nixon discloses controllers 4 and 5).

As to claim 3, Nixon teaches the apparatus of claim 2, wherein the at least one first input/output controller module communicates with the controller via at least one of

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DeviceNet, Ethernet, a SEMI specification defined network, or Profibus (see col. 5, line 20).

As to claim 5, Nixon teaches the apparatus of claim 2, wherein:

communication between the first and second devices is via at least one of DeviceNet, Ethernet, a SEMI specification defined network, or Profibus; and communication between the at least one first input/output controller module and the controller is via at least one of DeviceNet, Ethernet, a SEMI specification defined network, or Profibus (see col. 5; col. 15).

As to claim 9, Nixon teaches the apparatus of claim 1, further comprising at least one parallel input/output interface coupled between the first and second devices (see fig. 5; col. 15, lines 55-65).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 6, ,and 10-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon et al., U.S. Patent No. 6,098,116.

Nixon teaches the invention substantially as claimed including a process control system for automatically recognizing devices and controllers (see abstract).

As to claim 4, Nixon teaches the apparatus of claim 3.

Nixon fails to teach the claimed limitation wherein the first and second devices are semiconductor devices and the SEMI specification is SEMI E84.

However, "Official Notice" is taken that the concept and advantages of employing semiconductor devices and the SEMI specification as old and well known in the art.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by implementing semiconductor devices and use the SEMI specification. One would be motivated to do so to manage active and passive equipment.

As to claim 6, Nixon teaches the system of claim 1 further comprising:

at least one first input/output controller module of the first device (see fig. 1A; col. 5); and

at least one second input/output controller module of the second device, wherein the at least one first input/output controller module communicates with the at least one second input/output controller module via a network (see figs. 1-5; col. 5-6).

Nixon fails to teach the claimed limitation of communicating via a SEMI specification defined network.

However, "Official Notice" is taken that the concept and advantages of employing the SEMI specification for communication in an industrial network is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by implementing the SEMI specification for communication. One would be motivated to do so to manage both active and passive equipment.

As to claim 10, Nixon teaches the apparatus of claim 9.

Nixon fails to teach the limitation wherein the at least one parallel input/output interface includes at least one optical data transmission device.

However, "Official Notice" is taken that the concept and advantages of employing at least one parallel input/output interface includes at least one optical data transmission device is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by implementing at least one parallel input/output interface includes at least one optical data transmission device. One would be motivated to do so to manage an industrial system having active and passive devices.

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As to claim 11, Nixon teaches the apparatus of claim 1, wherein the first device and the second device includes valves, switches, motors regulators and the like (se col. 2).

Nixon fails to teach the claimed limitation wherein the first device includes an automated material handling system and the second device includes at least one of a CMP device or production equipment. Nixon does teach that the system is implemented in a process control systems (see col. 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by specifying the field deices as automated material handling system and at least one of a CMP device or production equipment since the same functionality of implementing a process control functions are achieved.

As to claim 12, Nixon teaches the apparatus of claim 1.

Nixon fails to teach the limitation wherein the first and second devices are semiconductor devices.

However, "Official Notice" is taken that the concept and advantages of employing semiconductor devices in process control systems is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by implementing semiconductor devices in place of the field devices. One would be motivated to do so to manage integrated circuit production equipment.

As to claim 13, Nixon teaches a method of communication between a first field device and a second field device, comprising the steps of:

configuring the second field device to have a controller (see figs. 1-5; col. 5-6; col. 15-16); and

providing communication between the first device and the controller via an industrial network in order to facilitate communication between the first and second devices (see col. 5-6; col. 15-16).

Nixon fails to teach the limitation wherein the first and second devices are semiconductor devices.

However, "Official Notice" is taken that the concept and advantages of employing semiconductor devices in process control systems is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by implementing semiconductor devices in place of the field devices. One would be motivated to do so to manage integrated circuit production equipment.

As to claim 14, Nixon teaches the method of claim 13, further comprising the steps of:

configuring the first device to have at least one first input/output controller module; and facilitating communication between the at least one first input/output controller module and the controller via at least one of DeviceNet, Ethernet, a SEMJ specification defined network, or Profibus (see col. 5-6; col. 15).

As to claim 15, Nixon teaches the method of claim 13, further comprising the steps of:

configuring the first semiconductor device to have at least one first input/output controller module; configuring the second semiconductor device to have at least one second input/output controller module; and facilitating communication between the at least one first input/output controller module and the at least one second input/output controller module via the industrial network (see col. 5-6; col. 15-16).

Claims 15-22 do not teach or define any new limitations above claims 1-14 and therefore are rejected for similar reasons.

As to claim 23, Nixon teaches a semiconductor system comprising:

a first device configured as a process control device having at least one controller (see fig. 1A; col. 5, line 55, Nixon discloses industrial controllers 4 and 5 that are connected and facilitate communications between filed devices connected thereto);

a second semiconductor device configured as a process control device having at least one input/output controller module (see fig. 1A; col. 5, line 55, Nixon discloses industrial controllers 4 and 5 that are connected and facilitate communications between filed devices connected thereto); and

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an industrial network for facilitating communication between the at least one controller and the at least one second input/output controller module(see fig. 1A; col. 5, line 20, Nixon discloses an industrial network 3).

Nixon fails to teach the limitation wherein the first and second devices are semiconductor devices configured as a chemical polishing device and a production tool.

However, "Official Notice" is taken that the concept and advantages of employing semiconductor devices configured as a chemical polishing device and a production tool in process control systems is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nixon by implementing semiconductor devices configured as a chemical polishing device and a production tool. One would be motivated to do so to manage industrial or production equipment.

As to claim 24, Nixon teaches the system of claim 23, wherein facilitating communication between the at least one controller and the at least one second input/output controller module is via at least one of DeviceNet, Ethernet, a SEMI specification defined network, or ProfiBus (see figs. 1-5; col. 5-6).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saleh Najjar whose telephone number is (703) 308-7613. The examiner can normally be reached on Monday-Friday from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Ario Etienne*, can be reached on (703) 308-7562. The fax phone number for this Group is (703) 308-9052.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600. The central official fax number for the group is (703) 872-9306.



Saleh Najjar

Primary Examiner / Art Unit 2157